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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,892	01/24/2006	William David Lewis	024774556	7925
24978	7590	02/01/2011		
GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606				
EXAMINER				
O HERN, BRENT T				
ART UNIT		PAPER NUMBER		
1783				
MAIL DATE		DELIVERY MODE		
02/01/2011		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/565,892

**Applicant(s)**

LEWIS ET AL.

**Examiner**

BRENT T. O'HERN

**Art Unit**

1783

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 41-57, 62 and 64-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41-57, 62 and 64-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claims***

1. Claims 41-57, 62 and 64-66 are pending.

**WITHDRAWN REJECTIONS**

2. All rejections for amended claims 62 and 64 of record in the Office action mailed 7/6/2010 have been withdrawn due to Applicant's amendments in the Paper filed 12/31/2010.

**REPEATED REJECTIONS**

3. All rejections of record, except for amended claims 62 and 64, in the Office action mailed 7/6/2010 have been repeated for the reasons of record in the Office action mailed 7/6/2010.

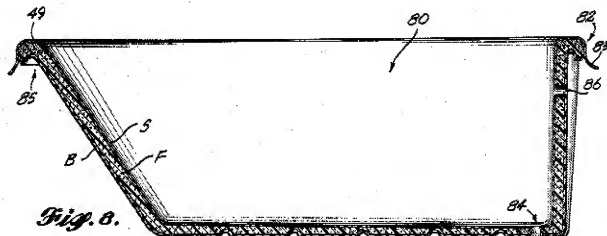
**NEW/REPEATED REJECTIONS**

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

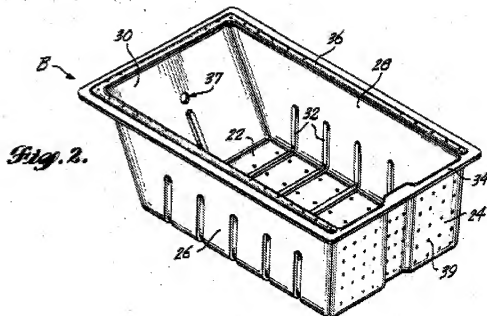
***Claim Rejections - 35 USC § 102***

5. Claims 41, 49, 52-57, 64 and 66 are rejected under 35 U.S.C. 102(b) as being anticipated by Bortz (US 4,289,717).

Regarding claim 41, Bortz ('717) teaches a composite article comprising a shower tray (See FIG-8, col. 3, ll. 21-26, col. 3, l. 21 to col. 4, l. 65.)



having an upper surface and an underside (See FIG-8, col. 3, ll. 21-26, col. 3, l. 21 to col. 4, l. 65.), the shower tray comprising an upper member providing the upper surface of the shower tray (See FIG-8, #S.) and a lower member on the underside of the shower tray that together form an outer shell (See FIG-8, #B.), the upper member being spaced from the lower member to define a cavity therebetween (See FIG-8, #S and #B spaced by foam filler #F.), and an inner core of filler extending throughout the cavity between the upper member and the lower member to provide strength and rigidity to the shower tray (See FIG-8, foam filler #F and col. 3, l. 21 to col. 4, l. 65. The filler provides at least a minimal amount of rigidity.), the upper and lower members being formed from plastics sheet material (See col. 2, ll. 30-53.) and the inner core being sandwiched between the upper member and the lower member to support the upper surface of the shower tray so that it does not flex when stood on (See FIG-8, #F and col. 3, l. 21 to col. 4, l. 65.), and wherein the lower member is provided with a means for releasing air from the cavity on the underside of the shower tray (See FIG-2, #39 and col. 4, ll. 24-31.).



Regarding claim 49, Bortz ('717) teaches wherein the inner core has a variable thickness (*See FIG-8, where the filler #F has ridges at the bottom providing for a variable thickness.*).

Regarding claims 52-53, Bortz ('717) teaches wherein the upper and lower members further comprise means for locating the members relative to one another, the locating means being removable to provide a perimeter of the shower tray with a flat surface on an underside wherein the locating means comprises co-operating formations on the upper and lower members (*See FIG-8 where the skin #S and base #B have curved areas at the edges at the perimeter. These curved edges are capable of being trimmed by cutting or grinding to fit the desired space.*).

Regarding claim 54, Bortz ('717) teaches wherein the upper and lower members further comprise means for providing a waste hole in said floor of said well (*See FIG-8, opening #84.*).

Regarding claim 55, Bortz ('717) teaches wherein the means for releasing air comprises holes in the lower member (*See FIG-2, #39.*).

Regarding claim 56, Bortz ('717) teaches wherein said lower member further comprises a means for assisting distribution of the filler between the members during moulding of the core (*See FIG-2, #32.*).

Regarding claim 57, Bortz ('717) teaches wherein the lower member is provided with an array of interlinked recessed regions (*See FIG-8 interlinked regions between the ribs.*).

Regarding claim 64, Bortz ('717) teaches a shower tray (*See FIG-8, col. 3, ll. 21-26, col. 3, l. 21 to col. 4, l. 65.*) having an upper surface and an underside (*See FIG-8, col. 3, ll. 21-26, col. 3, l. 21 to col. 4, l. 65.*), the shower tray comprising a floor and inner walls defining a well in the upper surface (*See FIG-8.*), an outer side wall at an outer peripheral edge of the upper surface (*See FIG-8.*), the outer wall extending from said upper surface of the shower tray to provide a flat surface around a base of the shower tray (*See FIG-8 where the outer top edges are flat and the outer wall extend downward from the upper surface.*) and an upper wall extending between the well and the outer side wall (*See FIG-8.*), the shower tray further comprising an upper member formed from plastics sheet material, a lower member formed from plastics sheet material (*See col. 2, ll. 30-53.*), and a core of filler sandwiched between the upper and lower members (*See FIG-8, #F.*), the upper and lower members being attached to the core on opposed sides thereof such that the upper member forms the upper surface and an outer surface of the outer side wall of the shower tray (*See FIG-8, #F.*), and the core extends

throughout a cavity defined between the upper and lower members in the region of the outer side wall (*See FIG-8, #F.*), upper wall and well such that the core provides strength and rigidity to the shower tray (*See FIG-8, #F and col. 3, l. 21 to col. 4, l. 65.*), and the lower member being provided on an underside of the shower tray with means for releasing air from the cavity (*See FIG-2, #39 and col. 4, ll. 24-31.*).

Regarding claim 66, Bortz ('717) teaches wherein the filler comprises a material that is flowable to all accessible regions of the cavity and hardens within the cavity to form the inner core between the upper and lower members (*See FIG-8, #F.*).

***Claim Rejections - 35 USC § 103***

6. Claims 42 and 65 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bortz (US 4,289,717) in view of Thiele et al. (US 2004/0126557).

Regarding claim 42, Bortz ('717) teaches the article discussed above, however, fails to expressly disclose the filler being a composite resin-stone mix.

However, Thiele ('557) teaches forming shower trays with a resin-stone matrix (*See paras. 13, 3 and 10 with the foamable resin containing polyisocyanate and abraded stone, sand and other fillers.*) for the purpose of providing a shapeable shower tray that has adequate load-bearing capacity (*See para. 3.*). Furthermore, said materials are typical inexpensive core materials for showers.

Therefore, it would have been obvious to a person having ordinary skill in the art to incorporate the above resin-stone materials as taught by Thiele ('557) in Bortz ('717) in order to provide a shapeable inexpensive shower tray that has adequate load-bearing capacity.

Regarding claim 65, Bortz ('717) teaches the article discussed above, however, fails to expressly disclose wherein said filler is compressed between said upper and lower members prior to hardening in situ, during which time said filler flows freely within said cavity.

However, Thiele ('557) teaches forming shower trays with a resin-stone matrix (*See paras. 13, 3 and 10 with the foamable resin containing polyisocyanate and abraded stone, sand and other fillers.*) for the purpose of providing a shapeable shower tray that has adequate load-bearing capacity (*See para. 3.*).

Therefore, it would have been obvious to a person having ordinary skill in the art that Bortz's ('717) modified article having the above resin-stone materials as taught by Thiele ('557) would flow freely between the upper and lower members and harden in situ in order to provide a shapeable inexpensive shower tray that has adequate load-bearing capacity.

7. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bortz (US 4,289,717) in view of Thiele et al. (US 2004/0126557) and Swanson (US 4,414,385).

Bortz ('717) and Thiele ('557) teach the composite discussed above and Thiele ('557) teaches combining a resin-stone mix comprising a mixture of limestone, calcium carbonate for a shower tray (*See paras. 13 and 3.*), however, fail to expressly disclose using a catalyst and the resin being dicyclopentadiene.

However, Swanson ('385) discloses incorporating dicyclopentadiene resin together with the above materials (*See col. 1, ll. 51-58.*) for the purpose of providing a



material with superior resistance to chemical attack (*See col. 1, ll. 49-50.*).

Furthermore, installing showers are typically large and costly projects and once installed these structures usually need to last for many years, thus, there is a clear desire that the materials do not chemically degrade quickly. Furthermore, catalysts are known to be used with resins in chemical reactions to either speed up or slow down the curing time so as to provide a product that cures at the desired time. It would have been obvious to provide a composition that cures in a reasonable amount of time, but not too quickly, so the technicians handling the materials do not have to wait long times to continue their work.

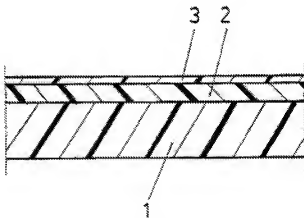
Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to provide an article with a dicyclopentadiene resin as taught by Swanson ('385) with a catalyst in Bortz ('717) in order to provide a material that can effectively be prepared with superior resistance to chemical attack. Furthermore, Applicant has not disclosed the criticality of using the DCPD resin over other resins.

**8.** Claims 44-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bortz (US 4,289,717) in view of Klepsch (US 2003/0008164).

Bortz ('717) teaches the composite discussed above, however, fails to expressly disclose wherein the upper member has an outer layer of hardwearing, scratch resistant material for absorbing impacts occurring during use of the article and wherein the outer layer of said upper member is an acrylic layer and said layer underneath said outer

layer is an acrylonitrile butadiene styrene (ABS) layer with the ratio of the ABS to the acrylic layer is 9:1.

However, Klepsch ('164) teaches a shower tray wherein the upper member has an outer layer of hardwearing, scratch resistant material for absorbing impacts occurring during use of the article and wherein the outer layer of the upper member is an acrylic layer and the layer underneath the outer layer is an acrylonitrile butadiene styrene layer with the ratio of the ABS to the acrylic layer being 9:1 (*See FIG and paras. 1 and 16 where the hardwearing, scratch resistant acrylic layer # 3 is between 1 and 30% and the first ABS layer is 10-20% of the total thickness while the second ABS layer #1 is the balance, thus, clearly providing the above 9:1 ratio.*) for the purpose of providing a moldable shower tray that is resistant to chemicals and hot and cold water (*See paras. 6 and 3.*).



Therefore, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to provide Bortz's ('717) shower tray with the above acrylic layer having the above relative thickness as taught by Klepsch ('164) in

order to provide a moldable shower tray that is resistant to chemicals and hot and cold water.

9. Claims 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bortz (US 4,289,717) in view of Buhr (DE 3423008 A1).

Bortz ('717) teaches the article discussed above, however, fails to expressly disclose wherein sockets are provided in an underside of said lower member for receiving legs for raising the article above a surface on which it is installed and wherein the legs are push-fit into the sockets.

However, Buhr ('008) teaches a shower tray having sockets in an underside for receiving legs and are push-fit into the sockets and are adjustable for the purpose of providing a shower tray with an adjustable level (*See FIGs 2-3, Abstract and pp. 3-7.*).

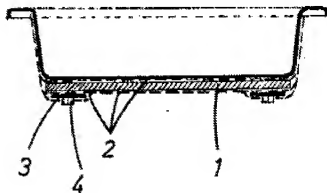


Fig. 2

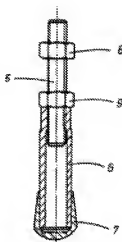


Fig. 3

Therefore, it would have been obvious to provide Bortz's ('717) shower tray with sockets and legs in order to provide a tray with an adjustable base.

**10.** Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bortz (US 4,289,717) in view of Thiele et al. (US 2004/0126557).

Regarding claim 62, Bortz ('717) teaches a shower tray (*See FIG-8, col. 3, ll. 21-26, col. 3, l. 21 to col. 4, l. 65.*) having an upper surface and an underside (*See FIG-8, col. 3, ll. 21-26, col. 3, l. 21 to col. 4, l. 65.*), the shower tray comprising an upper member forming the upper surface of the shower tray (*See FIG-8, #S.*), a lower member forming the underside of the shower tray (*See FIG-8, #B.*), and a core of filler (*See FIG-8, foam filler #F.*), the upper and lower members being formed from plastics sheet material (*See col. 2, ll. 30-53.*), the shower tray having a floor and inner walls upstanding from the floor to define a well in the upper surface of the shower tray (*See FIG-8.*), wherein the core of filler is sandwiched between the upper and lower members whereby the core of filler extends below the floor between the upper surface and the

underside of the shower tray and provides strength and rigidity to the shower tray (*See FIG-8, #F and col. 3, l. 21 to col. 4, l. 65.*), and wherein the lower member is provided with holes on the underside of the shower tray (*See FIG-2, #39 and col. 4, ll. 24-31.*), however, fails to expressly disclose the upper and lower members being vacuum formed.

It would have been obvious that Bortz's ('717) polymeric shower tray (*See FIG-8.*) that is formed in a mold has the same structure as a polymeric tray that is made from polymeric sheets made by vacuum formation. The claims are interpreted as being directed to a tray and not a method of making a tray. Bortz's ('717) method prepares a polymeric tray with a non-planar configuration by molding the polymeric material in a mold into a tray while Applicant's method prepares a polymeric tray with a non-planar configuration by molding a polymeric sheet material in a mold with the addition of vacuum into a tray. Thus, since both methods are capable of producing trays with non-planar configuration it would have been obvious that both methods are obvious alternatives for providing trays with the same non-planar configuration.

#### **ANSWERS TO APPLICANT'S ARGUMENTS**

11. In response to Applicant's arguments (*See p. 9, para. 2 to p. 10 of Applicant's Paper filed 12/31/2010.*) that Bortz's base and skin vinyl polymer material is not a plastic sheet material as per the claim 42, it is noted that said arguments are not persuasive. Whether or not Bortz's polymeric material forms a sheet after being molded or is a sheet before being molded does not matter. The claims are not directed to a sheet material but rather a tray that is made in part from a sheet material that has been transformed

into an upper member for a tray. Bortz's polymeric vinyl polymer is clearly a polymer sheet.

**12.** In response to Applicant's arguments (*See p. 10, para. 2 of Applicant's Paper filed 12/31/2010.*) that since Bortz's filler material provides cushioning and insulation it is not able to provide strength and rigidity to the finished product and can not support a person standing on the members, it is noted that said arguments are not commensurate in scope with the claims and are not persuasive. The claims do not state the fillers alone need to have strength and rigidity to support a person. As can be seen in FIGs 6 and 8 Bortz's filler #F fills the entire space between the upper and lower members with this filling material clearly providing at least a minimal amount of strength and rigidity in the structure.

**13.** In response to Applicant's arguments (*See p. 11 of Applicant's Paper filed 12/31/2010.*) that Bortz's base and skin vinyl polymer material is not a plastic sheet material as per the claim 62, it is noted that said arguments are not persuasive. Whether or not Bortz's polymeric material forms a sheet after being molded or is a sheet before being molded does not matter. The claims are not directed to a sheet material but rather a tray that is made in part from a sheet material that has been transformed into an upper member for a tray. Bortz's polymeric vinyl polymer is clearly a polymer.

**14.** In response to Applicant's arguments (*See p. 12 of Applicant's Paper filed 12/31/2010.*) that Bortz does not teach the new limitations per the claim 64, it is noted that the new limitations are discussed above.

15. In response to Applicant's arguments (*See pp. 12-14 of Applicant's Paper filed 12/31/2010.*) that Bortz and the other cited prior art do not teach the noted dependent claims, it is noted that no further precise arguments are set forth.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENT T. O'HERN whose telephone number is (571)272-6385. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRENT T O'HERN/  
Examiner, Art Unit 1783  
January 27, 2011